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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,970	12/03/2003	Craig B. Simpson	35861.0417	4372

20322 7590 07/12/2007  
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EXAMINER
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LEE, EDMUND H

ART UNIT	PAPER NUMBER
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1732

MAIL DATE	DELIVERY MODE
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07/12/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/726,970

Applicant(s)

SIMPSON ET AL.

Examiner

EDMUND H. LEE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 3-5 and 15-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The word "apparatus" (cl 3, ln 1; cl 4, ln 1; cl 5, ln 1) is indefinite because the independent claim is drawn towards a method not an apparatus. It is suggested to change word "apparatus" to --method--.

The step of closing (cl 15, ln 10) is indefinite because it is unclear as to whether or not the step is related to the steps of situating a first flying surface, aligning a plurality of forms, and situating a second flying surface. If the step of closing is related to the other steps, it should be positively and clearly recited as such.

The step of curing (cl 15, ln 11) is indefinite because it is unclear as to whether or not the step is related to the steps of situating a first flying surface, aligning a plurality of forms, situating a second flying surface, and closing. If the step of closing is related to the other steps, it should be positively and clearly recited as such.

The step of shrinking (cl 15, ln 12) is indefinite because it is unclear as to whether or not the step is related to the steps of situating a first flying surface, aligning a plurality of forms, situating a second flying surface, closing, and curing. If the step of closing is related to the other steps, it should be positively and clearly recited as such.

The step of closing (cl 16, ln 10) is indefinite because it is unclear as to whether or not the step is related to the steps of situating a first flying surface, aligning a plurality

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of forms, and situating a second flying surface. If the step of closing is related to the other steps, it should be positively and clearly recited as such.

The step of curing (cl 16, ln 11) is indefinite because it is unclear as to whether or not the step is related to the steps of situating a first flying surface, aligning a plurality of forms, situating a second flying surface, and closing. If the step of closing is related to the other steps, it should be positively and clearly recited as such.

The step of expanding (cl 16, ln 12) is indefinite because it is unclear as to whether or not the step is related to the steps of situating a first flying surface, aligning a plurality of forms, situating a second flying surface, closing, and curing. If the step of closing is related to the other steps, it should be positively and clearly recited as such.

The step of shrinking (cl 16, ln 13) is indefinite because it is unclear as to whether or not the step is related to the steps of situating a first flying surface, aligning a plurality of forms, situating a second flying surface, closing, and curing. If the step of closing is related to the other steps, it should be positively and clearly recited as such.

Correction is required.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1,2,3,10,11, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0572248. EP 0572248 teaches the claimed process as evidenced at

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col 1, ln 48-col 2, ln 28; and figs 1 and 2. It should be noted that mold halves 10 and 12 constitute the claimed clamshell frames because they are within the disclosed definition of the term.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4-9, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0572248. The above teachings of EP 0572248 are incorporated hererinafter. In regard to claims 4-5, the specific design of the spar is a mere obvious matter of choice dependent on the desired final product and of little patentable consequence to the claimed process since it is not a manipulative feature or step of the claimed process. Further, the claimed spar designs are well-known in the wing/airfoil art. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the claimed spar designs in the process of EP 0572248 in order to form a wing structure having diverse designs. In regard to claims 6-9, the use of a specific molding tool is a mere obvious matter of choice dependent on equipment availability and of little patentable consequence to the claimed process since it is not a manipulative feature or step of the claimed process. Further, the claimed molding tools are well-known in the wing/airfoil art. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the claimed

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molding tools in the process of EP 0572248 in order to form the wing structure of EP 0572248 with efficiency and accuracy. It should be noted that the forms of EP 0572248 teach pressurizable forms capable of receiving a positive pressure during the curing process, and controlling the shape of the composite with the shape of the form. In regard to claim 12, the use of a specific molding material is a mere obvious matter of choice dependent on the desired final product and material availability and of little patentable consequence to the claimed process since it is not a manipulative feature or step of the claimed process. Further, the claimed material is well-known in the wing/airfoil art. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a single sheet of composite material as the flying surfaces in the process of EP 0572248 in order to reduce molding complexity. In regard to claim 14, it is well-known in the molding art to apply primer in order to ensure proper bonding. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply primer to the controlling surfaces of the frames in order to ensure proper positioning and bonding of the materials.

6. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDMUND H. LEE whose telephone number is 571.272.1204. The examiner can normally be reached on MONDAY-THURSDAY FROM 9AM-4PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571.272.1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EDMUND H. LEE  
Primary Examiner  
Art Unit 1732

EHL

  
7/19/07